



WIRELESS AMPLIFIERS

TR - 100, TR - 60

www.crystal-acoustics.com

ATTENTION ⚠

Please read this booket carefully so that you get the best performance from this product and so that you become familiar with the functions of this device.
This manual cannot be reproduced by any other person or company and these instructions are subject to change without warning due to continuous imporovement of our products.

INTRODUCTION

GUARANTEE

These Crystal Acoustics systems have been manufactured and tested using state-of-the-art manufacturing techniques.
The manufacturer provides a two year guarantee. The guarantee excludes damage caused by improper use, water, lightning, and large scale catastrophes.

E.U. DIRECTIVES CONFORMITY

This equipment conforms to the European directive 99/5/ECR & TTE and carries the CE logo
The product adheres to the requirements of directive: RoHS

IDENTIFICATION PLATE

The identification label is permanently attached to the component in accordance with the requirements of directives 73/23 and 89/336 and carries the following logos:

INTRODUCTION

GENERAL INFORMATION

Congratulations on purchasing the pioneering wireless Crystal Acoustics sound system.
When receiving your order, check that the packaging has not been damaged during delivery and that the equipment is complete. Ensure that the components inside the packaging correspond to the exact model you have purchased. If not immediately contact your retailer.
The Wireless Speaker Adaptor series system you have purchased is manufactured using the very latest technology. This guarantees the best sound quality and equally an elegant appearance.
Your new system is a practical wireless device which embraces state-of-the-art engineering. We hope you enjoy the Wireless Speaker Adaptor series system and thank you for purchasing the product.

The Wireless Speaker Adaptor series system is intended for use, such as at home or in the office etc, removing the need for wires in these environments.

IMPORTANT SAFETY INSTRUCTIONS

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1. **WARNING:** Before commencing installation, always ensure all products are disconnected from the mains
2. Make sure the electricity supply matches that shown on the product rating label
3. Always disconnect the devices from the mains before cleaning them
4. Do not force any switches, buttons or wire connections during installation. Never pull on the wires
5. **WARNING:** Do not cover heat vents. Doing so may cause overheating and potentially start a fire
6. If anything falls into the device via the ventilation openings, contact your supplier
7. If you want to clean the exterior of your product use a damp cloth
8. **WARNING:** Do not use any cleaning products containing chloride or any other toxic products
9. If you do not plan to use your device for a long period of time please disconnect the product from the mains

Restrictions: The present product is not suitable:

1. For use in damp surroundings or in wet conditions
2. For use in gas stations or in any other surroundings with explosive material.

Attention: Do not open the product for any reason. In case of damage please refer to your retailer

TR-100

TR-100 is a set of wireless amplifiers comprised of one transmitter and two separate receivers with amplifiers.

SPECIFICATIONS

	Transmitter (T-100m)	**Receiver – Amplifier (R-100W)**
Transmission/Reception Frequency	2,4GHz (ISM Band)	2,4GHz (ISM Band)
Channels	4 auto selection	4 auto selection
Frequency Response	20Hz – 20kHz	20Hz – 20kHz
Noise to Signal	> - 87db	> - 87db
Channel Separation	> - 95dB	> - 95dB
Sampling	48 kHz	48 kHz
A/D Conversion	16 bit	16 bit
T.H.D.	< 0,02%	< 0,02%
Slew Rate	-	12V/ms
Inputs	High-Level from AV Receiver output, Line-Level from pre-amp RCA output & MP3 output	
Output power	-	100W/channel
Power On control	On/Off Switch	Auto
Mute	-	Auto
Power Supply	230V AC / 50Hz	230V AC / 50Hz
Weight	200gr	200gr
Dimensions (WxDxH)	4.33x4.33x2in	5.7x2.8x1.6in
Free space range	330ft (100m)	330ft (100m)
Auto-power off	-	30 sec. without audio input
Transmission range in home environment	82ft (25m)	82ft (25m)

PACKAGE CONTENTS

The TR-100 package includes:

1. One T-100 wireless transmitter
2. Two R-100W wireless receivers with amplifier
3. Two pieces of 3.3ft speaker cable
4. One piece of 5ft RCA to RCA cable
5. One piece of 5ft RCA to Mini JACK cable
6. Warranty & Manual

INSTALLATION OF APPLIANCES

Begin the installation of the T-100 transmitter as per the instructions in the manual:



1. In the packing you will find a double RCA cable. Carefully connect the RCA cable to the PRE OUT output on your amplifier. Then carefully connect the other end of the RCA cable to the LOW INPUT on the T-100

2. If your amplifier does not have a PRE OUT then connect the two cables for speakers in the HI INPUT inputs of the T-100

3. Connect the power cable to the mains

4. Activate the system with the On/Off switch of the T-100

5. The transmitter will do an automatic interference detection and within five seconds it will transmit “clearly”

After you have finished with the installation of the T-100, you can continue with the installation of the R-100W receivers with amplifiers



1. Verify the Ohmic resistance at the rear panel of your speakers. For 6 or 8 Ohm speakers place the switch found between the inputs of the receiver amplifier to 8R. If your speakers have the indication 4 Ohms place the switch to 4R.

2. In the packing you will find two double cables. Carefully connect the cable from the outputs of the R-100W to the speaker’s binding posts. Do the same for the other amplifier making sure that you’re connecting the corresponding receiver amplifier to the Right or Left Speaker.

3. Once the connections are made, plug each receiver amplifier into the mains

OPERATION OF APPLIANCE

The TR-100 system is activated by the On/Off switch at the back of the T-100. The R-100Ws are activated automatically.

TROUBLESHOOTING

The power indicator doesn't light up on the T-100:

1. Check that the power cable is in the socket
2. Check that all cables are properly connected according to this instruction manual
3. Check that the On/Off switch is turned on

The power indicator doesn't light up on the R-100W:

1. If you placed the receiver amplifier on a power strip, check that the power cable is in the socket and if the power switch of the strip is on.
2. Check that the power indicator of the T-100 is on
3. If the distance that you have placed the R-100Ws from the T-100 is very large, try a smaller distance according to specifications so that connection is established. Also, if bulky objects between devices cause interference, try moving them around.

No sound is coming from the loudspeakers:

1. Check that the power indicator on the R-100Ws is lit up
2. Check that all the R-100W cables are properly connected

TR - 60

TR-60 is a set of wireless amplifiers comprised of one transmitter and one receiver with stereo amplifier.

SPECIFICATIONS

	ΠΟΜΠΟΣ (T-100m)	ΔΕΚΤΗΣ – ΕΝΙΣΧΥΤΗΣ (R-60W)
Transmission/Reception Frequency	2,4GHz (ISM Band)	2,4GHz (ISM Band)
Channels	4 auto selection	4 auto selection
Frequency Response	20Hz – 20kHz	20Hz – 20kHz
Noise to Signal	> - 87db	> - 87db
Channel Separation	> - 95db	> - 95db
Sampling	48 kHz	48 kHz
A/D Conversion	16 bit	16 bit
T.H.D.	< 0,02%	< 0,02%
Slew Rate		12V/ms
Inputs	High-Level from AVReceiver output, Line-Level from pre-amp RCA output & MP3 output	
Output power	-	60W/Channel
Power On control	On/Off Switch	Auto
Mute		Auto
Power Supply	230V AC / 50Hz	230V AC / 50Hz
Weight	200gr	250gr
Dimensions (WxDxH)	4.33x4.33x2in	5.7x2.8x1.6in
Free space range	330ft (100m)	330ft (100m)
Auto-power off		30 sec. without audio input
Transmission range in home environment	-	82ft (25m)

PACKAGE CONTENTS

The TR-60 package includes:

1. One T-100m wireless transmitter
2. One R-60W wireless receiver with stereo amplifier
3. One piece of 3.3ft speaker cable
4. One piece of 10ft speaker cable
5. One piece of 5ft RCA to RCA cable
6. One piece of 5ft RCA to mini jack cable
7. Warranty & Manual

INSTALLATION OF APPLIANCES

Begin the installation of the T-100 transmitter as per the instructions in the manual:



1. In the packing you will find a double RCA cable. Carefully connect the RCA cable to the PRE OUT output on your amplifier. Then carefully connect the other end of the RCA cable to the LOW INPUT on the T-100.

2. If your amplifier does not have a PRE OUT then connect the T-100 in the HI INPUT inputs using a speaker cable.

3. Connect the power cable to the mains.

4. Activate the system with the On/Off switch of the T-100.

5. The transmitter will do an automatic interference detection and within five seconds it will transmit “clearly”.

After you have finished with the installation of the T-100, you can continue with the installation of the R-60W receiver with stereo amplifier



1. In the packing you will find two double cables. Carefully connect the cable from the outputs of the R-60W to the speakers’ binding posts.

2. Once the connections are made, plug the receiver amplifier into the mains.

OPERATION OF APPLIANCE

The TR-60 system is activated by the On/Off switch on the T-100.
The R-60W is activated automatically.

TROUBLESHOOTING

The power indicator doesn't light up on the T-100:

1. Check that the power cable is in the socket
2. Check that all cables are properly connected according to this instruction manual
3. Check that the On/Off switch is turned on

The power indicator doesn't light up on the R-60W:

1. If you placed the receiver amplifier on a power strip, check that the power cable is in the socket and if the power switch of the strip is on.
2. Check that the power indicator of the T-100 is on
3. Make sure there's audio signal at the T-100 transmitter input or move the transmitter switch to OFF and than ON again.
4. If the distance that you have placed the R-100Ws from the T-100 is very large, try a smaller distance according to specifications so that connection is established. Also, if bulky objects between devices cause interference, try moving them around.

No sound is coming from the loudspeakers:

1. Check that the power indicator on the R-60W is lit up
2. Check that all the R-60W cables are properly connected

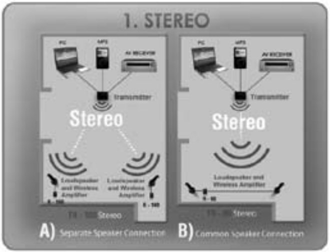
Crystal Acoustics Wireless Technology with High Quality Sound – Comparison with other Technologies

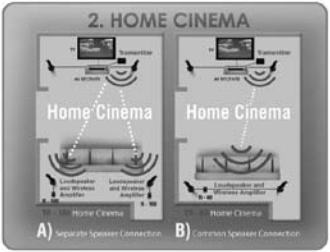
	Crystal Audio Link Technology	Other infrared systems	Other wireless systems using 2.4GHz	Bluetooth systems RF technology	AV Sender
Technology	Digital Transmission	Infrared wave, analogue signal	Digital Transmission	Digital Transmission	Analogue Transmission
Frequency	2.4GHz	800-900nm	2.4GHz	2.4GHz	2.4GHz
Echo	No echo, thanks to a very low latency of less than 2ms	There is echo, because of the considerable latency of 20-60ms	There is echo, because of the considerable latency of 20-60ms, depending on the manufacturers	There is significant echo, because of the latency inserted by the signal compression - decompression	No echo, but analogue modulation used
Clicks, Pops and other Interference caused by Microwave ovens, PC Wireless Networks, etc.	Without any interference	Interference when an obstacle is inserted in the line of sight between transmitter and receiver	Interference depending on the manufacturer and the devices	Possible interferences from other Bluetooth systems, like mobile phones, Bluetooth headsets, etc.	Interference susceptible, resulting in audio degradation
Amplifier Quality	High Quality amplifiers, available in two power levels, with enough power for every speaker system and room	Low Quality and not enough music power	Low Quality and not enough music power	Low Quality and not enough music power	Without integrated amplifier
Loudspeakers Quality	Class leading Crystal Acoustics speaker, awarded by the biggest magazines in UK and US	Low quality loudspeakers with cheap speakers and plastic cabins	Low quality loudspeakers with cheap speakers and plastic cabins	Low quality loudspeakers with cheap speakers and plastic cabins	No accompanying loudspeakers
Sound Quality	Top	Average	Average	Average	Average

For supreme sound quality use Crystal Acoustics loudspeakers which have received awarded by the biggest magazines in UK, USA and other countries. The Best Gear to Buy Right Now' by the largest USA magazine 'Sound & Vision'. «Best Speakers of 2007» Award by the leading UK's title 'Home Cinema Choice'. «Best Buy» Award by the leading UK's title 'What Home Cinema'

Connect without Cables:

- As many Speakers
- In as Many Places
- From any Sound Source







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